



Rack Conveyor Dishmachine Maintenance Instructions

# Heater Replacement





Jackson rack conveyor machines come equipped with heaters to ensure proper ware washing results. Occasionally, some of these components may need replacing to maintain optimum performance.

Jackson offers all of the repair parts necessary for performing this task.

The instructions provided here are for maintenance personnel only. Unauthorized persons should not attempt any of the steps contained in these instructions.

Warning: many of the instructions and steps within this document require the use of tools. Only authorized personnel should ever perform any maintenance procedure on the dishmachine!

#### **PREPARATION**

- 1. Power must be secured to the unit at the service breaker. Tag or lock out the service breaker to prevent accidental or unauthorized energizing of the machine.
- 2. Ensure that incoming water to the machine is secured either by use of a shut-off valve or disconnecting the incoming water line.
  - 3. The unit must be drained completely.

# **TOOLS REQUIRED**

The following tools will be needed to perform this maintenance evolution:

- 1. 3/8" Nutdriver
- 2. Ratchet
- 3. 1/2" Socket
- 4. 3/8" Socket
- 5. Phillipshead Screwdriver
- 6. Needlenose Pliers
- 7. Torque Wrench
- 8. Siliconee Sealant
- 9. Amp Meter

# TIME REQUIRED

It is estimated that it will take (1) person ninety minutes to perform this task, not including all of the items indicated in the section entitled "PREPARATION".

## **IMPORTANT NOTES**

1. Read these instructions thoroughly before attempting this maintenance task. Become familiar with the parts and what actions need to be taken. This will save time in the long run!

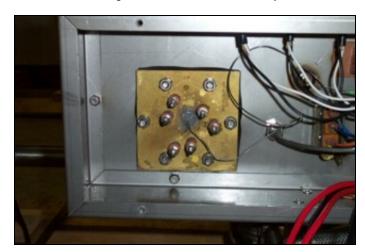
#### **STEPS**

- 1. Remove the front dress panel.
- 2. Remove the heater box cover to expose the heater. Set the cover and hardware to the side.
- 3. Remove the incoming electrical lines from the heater. Set the hardware to the side.



Removing the power lines.

4. Push the incoming electrical lines out of the way.



Heater without power lines attached.

- 5. The thermostat probe needs to be removed from the well inside the heater. The probe is secured in place with silicone that must be peeled away prior to attempting to remove it. It is important that you do not damage the probe during this part of the maintenance action. If you do, then the thermostat will have to be replaced as well.
- 6. Using your hand or needlenose pliers, remove the silicone so that the thermostat probe may be gently removed.





Removing silicone from thermostat well

7. With the thermostat probe out of the way, use the 1/2" socket and ratchet to remove the nuts holding the heater to the tub. Remove all nuts and lockwashers.



Removing the nuts and lockwashers

8. Remove the heater from the tub weldment.



Removing the heater

#### 9. Remove the gasket.



Removing the gasket

- 10. Before proceeding any further, it is important to verify that the tub wall is free of any excess debris so that when the new gasket is applied, there are no gaps that could lead to leaking around the heater.
- 11. Apply the new heater gasket from your service kit.
- 12. Slide the heater onto the studs and apply by hand the lock-washers and nuts. Tighten the nuts by hand and then use the torque wrench set to 154 in-lbs to ensure that the nuts are secure.



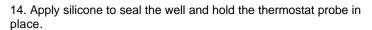
Applying the torque wrench to the nuts

13. The thermostat probe needs to be placed into the well of the new heater. Again, use caution when doing this so that the probe or the capillary tube do not become broken. If this occurs, then the thermostat will have to be replaced.





Putting the thermostat probe in the heater well



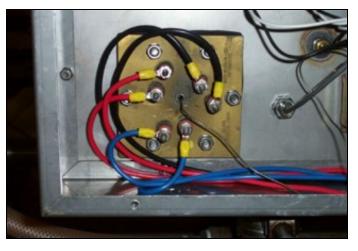


Applying silicone to the heater well

15. Reattach the incoming power lines to the heater, ensuring that you wire the heater correctly for either single or three phase operation.



Single phase wiring



Three phase wiring

16. Using the torque wrench or a torque nutdriver (if available) torge the nuts holding the wires, jumpers and bus bars to 16 in-lbs.



Tightening the nuts holding the power lines

- 17. Ensuring that all non-essential personnel are clear of the area, close the drain valve(s) and restore power and water to the unit. Turn the unit on and allow it to fill normally.
- 18. Verify that there are no leaks around the heater. If there are, attempt to tighten it down as the tub will change shape slightly as it heats up.
- 19. Use the amp meter to take readings off of the power lines to the heater, verifying the amperage draw to the machine data plate.
- 20. Wait until the heater contactor kicks out (meaning that the tub has reached the appropriate temperature) and place the unit in DELIME mode by flipping the switch on the back of the control box. Allow the unit to operate for at least ten minutes to verify that there are no leaks and that the heater is maintaining the tank temperature.
- 21. If the unit appears to be operating correctly, return it to AUTO mode and turn off.



- 22. Replace the heater box cover.
- 23. Replace the front dress panel.

# **AFTER MAINTENANCE ACTIONS**

Service perosnnel may want to drain the machine and allow it to cool down. Secure power to the unit at the service breaker and then verify the torque of all fasteners covered in this instruction.

# **SPECIAL NOTES**

Work performed on Jackson dishmachines by unauthorized or unqualified personnel may void the warranty. Before beginning this or any other maintenance evolution on a unit under warranty, you should contact a certified Jackson technician or Jackson Technical Service. You can find a list of qualified service agencies in the back of you unit's installation manual.

#### **SPECIAL PARTS**

#### **Heater Replacement Kit Chart**

<u>Model</u>	<u>Volts</u>	<u>Phase</u>	<u>KW</u>	Part Number
All	208	1	15	06401-003-10-21
	230	1	15	06401-003-10-22
	200	3	15	06401-003-10-21
	208	3	15	06401-003-10-21
	220	3	15	06401-003-10-22
	230	3	15	06401-003-10-22
	380	3	15	06401-003-10-28
	415	3	15	06401-003-10-28
	440	3	15	06401-003-10-29
	460	3	15	06401-003-10-31
	575	3	15	06401-003-10-33
	600	3	15	06401-003-10-33
	208	1	10	06401-003-12-94
	230	1	10	06401-003-12-95
	200	3	10	06401-003-12-94
	208	3	10	06401-003-12-94
	230	3	10	06401-003-12-95
	460	3	10	06401-003-12-96
	575	3	10	06401-003-12-97
	600	3	10	06401-003-12-97

## **CONTACT INFORMATION**

Jackson MSC Inc. provides technical support for all of the dishmachines detailed in this manual. We strongly recommend that you refer to this manual before making a call to our technical support staff. Please have this manual with you when you call so that our staff can refer you, if necessary, to the proper page. Technical support is available from 8:00 a.m. to 5:00 p.m. (EST), Monday through Friday. Technical support is not available on holidays. Contact technical support toll free at 1-888-800-5672. Please remember that technical support is available for service personnel only.